



Complete Summary

TITLE

Acute stroke care: percentage of eligible stroke patients diagnosed with a ischaemic stroke with documented evidence of recombinant tissue-type plasminogen activator (rt-PA) administered during audit period.

SOURCE(S)

National Stroke Foundation. Acute stroke services framework 2008. Melbourne VIC: National Stroke Foundation; 2008. 37 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of eligible stroke patients diagnosed with a ischaemic stroke with documented evidence of recombinant tissue-type plasminogen activator (rt-PA) administered during audit period.

RATIONALE

Pooled analysis from the recombinant tissue-type plasminogen activator (rt-PA) trials confirm that treatment with intravenous rt-PA has a clear net benefit in reducing the odds of death or dependency if given within 3 hours (with recent evidence of benefit up to 4.5 hours). However due to risk of harm from this intervention, intravenous rt-PA therapy should be delivered in well equipped and skilled emergency departments and/or stroke care units with adequate stroke expertise and infrastructure for monitoring, rapid assessment and investigation of acute stroke patients.

PRIMARY CLINICAL COMPONENT

Acute stroke; intravenous thrombolysis; recombinant tissue-type plasminogen activator (rt-PA)

DENOMINATOR DESCRIPTION

Total number of ischaemic stroke patients admitted to hospital within 3 hours of stroke onset who satisfy the inclusion criteria, during audit period (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Number of eligible stroke patients diagnosed with a ischaemic stroke with documented evidence of recombinant tissue-type plasminogen activator (rt-PA) administered during audit period

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- A systematic review of the clinical literature
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Organisation of services. In: Clinical guidelines for acute stroke management.](#)
- [Pre-hospital care. In: Clinical guidelines for acute stroke management.](#)
- [Early assessment and diagnosis. In: Clinical guidelines for acute stroke management.](#)
- [Acute medical and surgical management. In: Clinical guidelines for acute stroke management.](#)
- [Assessment and management of the consequences of stroke. In: Clinical guidelines for acute stroke management.](#)
- [Prevention and management of complications. In: Clinical guidelines for acute stroke management.](#)
- [Secondary prevention. In: Clinical guidelines for acute stroke management.](#)
- [Discharge planning, transfer of care and integrated community care. In: Clinical guidelines for acute stroke management.](#)

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Hospitals

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age greater than 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Stroke is Australia's second single greatest killer after coronary heart disease and a leading cause of disability.

EVIDENCE FOR BURDEN OF ILLNESS

Australian Institute of Health and Welfare (AIHW). Australia's health 2006. Canberra ACT: Australian Institute of Health and Welfare (AIHW); 2006. 528 p.

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Safety
Timeliness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Ischaemic stroke patients admitted to hospital within 3 hours of stroke onset who satisfy the inclusion criteria, during audit period

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Total number of ischaemic stroke patients admitted to hospital within 3 hours of stroke onset who satisfy the inclusion criteria*, during audit period

*Inclusion criteria:

- Greater than 18 years old
- Less than 3 hours from stroke onset
- Computerised tomography (CT) does not show signs of haemorrhage or non-vascular cause of stroke
- Measureable and clinically significant deficit on NIH Stroke Scale

Exclusions

Contra-indicators documented (e.g., haemorrhage confirmed on brain imaging) or other reasons patient was not eligible for the intervention*

*Contra-indications include:

- Uncertainty about time of stroke onset (e.g., patients awaking from sleep) or greater than 3 hours since onset of symptoms
- Coma or severe obtundation with fixed eye deviation and complete hemiplegia
- Only minor stroke deficit which is rapidly improving
- Seizure observed or known to have occurred at onset of stroke
- Hypertension: systolic blood pressure greater than or equal to 185 mmHg; or diastolic blood pressure greater than 110 mmHg on repeated measures prior to study
- Clinical presentation suggestive of subarachnoid haemorrhage even if the CT scan is normal
- Patient having received heparin within the last 48 hours and has elevated Partial Thromboplastin Time (PTT) or has a known hereditary or acquired haemorrhagic diathesis (e.g., Prothrombin Time (PT) or Activated Partial Thromboplastin Time (APTT) greater than normal)
- International Normalized Ratio (INR) greater than 1.5
- Platelet count is less than 100,000 uL
- Serum glucose is less than 2.8mmol/l or greater than 22.0 mmol/l

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Diagnostic Evaluation
Institutionalization

DENOMINATOR TIME WINDOW

Time window is a fixed period of time

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of eligible* stroke patients diagnosed with a ischaemic stroke with documented evidence of recombinant tissue-type plasminogen activator (rt-PA) administered during audit period

*See the "Denominator Inclusions/Exclusions" field.

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Encounter or point in time

DATA SOURCE

Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure**SCORING**

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties**EXTENT OF MEASURE TESTING**

Unspecified

Identifying Information

ORIGINAL TITLE

Received intravenous thrombolysis (rt-PA).

MEASURE COLLECTION

[Performance Indicators for Acute Stroke](#)

DEVELOPER

National Stroke Foundation (Australia)

FUNDING SOURCE(S)

National Stroke Foundation (Australia)

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

National Stroke Audit Advisory Committee (2007) involving 18 people with expertise in clinical care, policy, administration and methodology. Consumer input was also included.

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Unspecified

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2002 Jan

REVISION DATE

2008 Jan

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

National Stroke Foundation. Acute stroke services framework 2008. Melbourne VIC: National Stroke Foundation; 2008. 37 p.

MEASURE AVAILABILITY

The individual measure, "Received Intravenous Thrombolysis (rt-PA)," is published in "Acute Stroke Services Framework 2008." This document is available in Portable Document Format (PDF) at the [National Stroke Foundation Web site](http://www.strokefoundation.com.au).

For more information, contact the National Stroke Foundation at Level 7, 461 Bourke Street, Melbourne VIC 3000; Phone: (03) 9670 1000; Web site: www.strokefoundation.com.au.

COMPANION DOCUMENTS

The following is available:

- National Stroke Foundation. Acute stroke services framework summary. Melbourne VIC: National Stroke Foundation, 2008. 6 p. This document is available in Portable Document Format (PDF) at the [National Stroke Foundation Web site](http://www.strokefoundation.com.au).

For more information, contact the National Stroke Foundation at Level 7, 461 Bourke Street, Melbourne VIC 3000; Phone: (03) 9670 1000; Web site: www.strokefoundation.com.au.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on April 9, 2009. The information was verified by the measure developer on July 23, 2009.

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